OEL-839/64

2 September 1964

25X1A

MEMORANDUM FOR: [redacted]

SUBJECT: Comments on Your Memorandum for Record, 28 August 1964

25X1B

[redacted]

2. If I understand your memorandum, you propose to do this looking at back lobe. This would appear to be as straight forward as measurement in the forward area and should pose no great problems. To be specific, assume the following:

a. As described above, two antenna patterns are taken at points whose angular separation measured at the target radar is known.

b. If these two patterns have a correlation function approaching 1 with the time displacement characteristic of the separation of the antenna adjusted, it will be certain that scintillation and similar facts are negligible. (Some curve adjustment allowing for a variation in the time displacement is required if the scan is not linear.)

c. If the displacement of the two curves is constant then the sweep rate is known to be constant and the beam width, etc. can be directly calculated.

d. If the separation is not constant then the sweep rate is not constant, but the sweep rate can still be accurately determined, beam width measured, etc.

25X1A e. This can be achieved only on a horizontal scan.

3. Tests against the DOFL C-band set at [redacted] would only indicate it can be accomplished against that site since the test of correlation must be applied for each radar at each site. However, some calculation may show that the siting effects will always be acceptably small for small intercept antenna angles.

25X1A

[redacted]

DAD/S&D/OEL

Attachment:
Subject memorandum

Distribution:
Orig w att - Addressee
1 w/o att - OEL Registry
1 w/o att - DAD/S&D Chrono

25X1A

OAD/[redacted]js/6911